

RECEIVER AND METHOD THEREFOR

Abstract of the Disclosure

5 Embodiments of the present invention relate generally to receivers. One
embodiment relates to a digital FM receiver having multiple sensors (e.g.
antennas). In one embodiment, the digital receiver includes a baseband unit
having a channel processing unit. In one embodiment, the channel processing
unit is capable of calculating or estimating a phase difference between the
10 incoming signals prior to combining them. One embodiment uses phase
estimation method for diversity combining the signals while another
embodiment utilizes a hybrid phase lock loop method. Also, some embodiments
of the present invention provide for echo-cancelling after diversity combining.
An alternate embodiment of the channel processing unit utilizes a space-time
15 unit to diversity combine and provide echo cancelling for the incoming signals.
Other embodiments of the present invention allow for the incoming signals
from the multiple antennas to pass through the baseband unit uncombined,
where the incoming signals may have different data formats.